STAT5044: Regression and ANOVA, Fall 2014
24hour Take-Home Exam due on 4:00 pm, Nov. 13

Problem

The data shown are 37 observations from a synthetic-rubber process. The data were collected in order to investigate the relationship between the weight (in percent) and of a solvent and the corresponding product rate of the rubber process. Researcher also would like to predict the weight when the rate is 500 as well as predict the rate when the weight is 0.7.

As a statistician, you propose two best models and describe why these two models are the best to explain the relationship between two variables. You also make an inference in your proposed models and interpret them. Discuss the advantage and disdavantage of your models.

Instruction:

- You can communicate about this problem with your instructor only. Don't discuss about this problem with other students.

- You should make written report including introduction, model/methods, result, conclusion/discussion, and appendix.

    - Introduction: you explain about the summary of data and give the goal of data analysis
    - Model/Methods: you explain how you find your best two models
    - Result: you summarize your results. If you need, you can use table or figure
    - Conclusion/discussion: you summarize and discuss about your finding.
    - Appendix: you attach your code in appendix.

- Your written report should be submitted on the deadline

Good luck!